Show Me Falls Free Missouri

Update 2012

Falls among Older Adults: A National Public Health Crisis

Falls and fall-related injuries among older adults are common and present a serious public health crisis in the United States and worldwide.[1-2] Falls among older adults cause significant morbidity, including pain, functional impairment, disability, hospitalizations, death and premature nursing home admissions.[1-3] Further, they place a significant burden on individuals, families, society and the health care system, as evidenced through associated costs and decreased quality of life for our older adults and their families.[1-6]

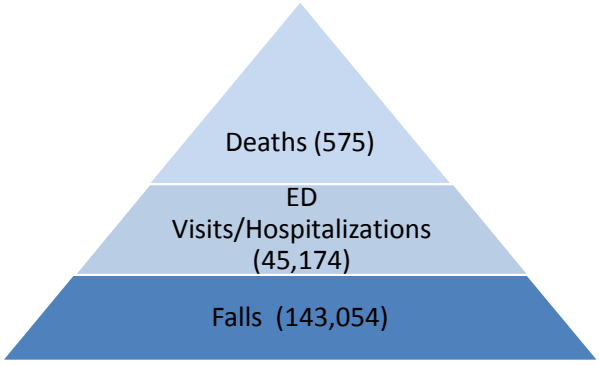
Falls are not an inevitable part of the aging process, but are often highly preventable.

How big is the problem?

More than one-third of community-dwelling U.S. adults 65 and older fall each year. In Missouri, 17 to 18 percent of adults older than 45 reported falling in the past three months, according to 2006 to 2010 surveys.[7] We know most of these are in the oldest age groups, as the rate increases to 40 percent among those older than 80.[1]

Among older adults, falls are the leading cause of injury deaths.[1] According to the Centers for Disease Control (CDC), 18,334 people aged 65 and older died in the U.S. from injuries related to unintentional falls, a somewhat higher number than in 2005.[7] Of these, 575 were in Missouri. The falls death rate for older Missourians in recent years has been nearly four times the rate for the next highest injury cause, which is motor vehicle accidents.[8] And the rate is increasing. The death rate due to falls among Missourians age 65 and older rose nearly 60 percent between 1999 and 2009, from 45.8 per 100,000 to 72.32 per 100,000.[8]

Figure 1. Scope of Falls in Older Missourians in 2009-2010



Source: Missouri MICA (2009) and BRFSS (2010) data

Falls are also common in institutional settings, with twice the number of nursing home residents falling each year compared to community-dwelling elders.[9] Falls in acute care vary by unit, and range from 1 to 7 falls per 1,000 patient days in the hospital.[10-11]

Further, according to CDC, falls are the most common cause of nonfatal injuries and hospital admissions for trauma. In 2010, 2.3 million people 65 and older across the U.S. were transported to hospitals or emergency departments for nonfatal injuries from falls. Nearly 596,000 of those patients were hospitalized.[7]

What outcomes are linked to falls?

Twenty percent to 30 percent of people who fall suffer moderate to severe injuries such as bruises, hip fractures, or head traumas.[1] Most fractures among older adults are caused by falls. Many older adults never fully recover from falls, especially after a fracture, and live with chronic pain and reduced functional abilities that often lead to reduced independence and even nursing home admissions. One study found that having a fall tripled the risk of nursing home placement for an older adult, and for those with a serious injury, the risk increased tenfold.[12]

Falls are the most common cause of traumatic brain injuries. In 2005, traumatic brain injury accounted for 5 percent of fatal falls among older adults and 8 percent of nonfatal falls.[13]

A significant number of older people develop a fear of falling.[14-15] This fear may cause them to lose confidence in their physical abilities and limit their activities. As a result, they can become out of shape, weaker and isolated, which actually increases their risk of falling. This fear is most common among older people who have fallen, but also occurs in those who have not.

The impact of older adults' fall-related injuries upon their caregiver(s), in terms of decreased productivity, increased time away from work, and family and stress-related issues, is widely acknowledged, [6] but not commonly discussed or quantified in the literature.

How costly are fall-related injuries among older adults?

Falls increase health care costs, even falls without a significant injury.[16] The total direct cost of all fall injuries for older U.S. adults in 2000 was slightly more than $19 billion.[4] By 2020, the annual direct and indirect cost is expected to reach $47 billion (in 2010 dollars).[16] Falls account for 6 percent of older adults' medical costs.[3] The cost of fall injuries tends to increase with age and be higher for women.[4]

Fractures are the most common and the most costly type of nonfatal injuries. More than one-third of nonfatal injuries are fractures, but they made up 61 percent of the slightly more than $19 billion in U.S. costs in 2000. Most of the costs of nonfatal fall injuries are for those needing hospitalization; one-fifth of costs are for injuries treated in emergency rooms.[4] A majority of older adults never regain their pre-fracture level of functioning and, many time the result is nursing home placement.[3]

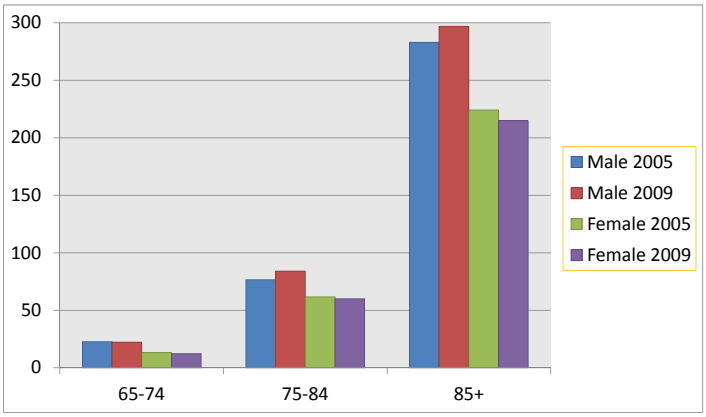
The Scope of Falls among Missouri's Older Adults

How big is the problem in Missouri?

The percentage of adults in Missouri (age 45 and older) who report having a fall in the past three months has not changed significantly since 2006 (2006 -17 percent; 2008 –18 percent; and, 2010 –17 percent).[7] In Missouri, the fall death rate for older adults is consistently higher than the national death rate (72.32 vs. 48.4 per 100,000 population in 2009).[8] Indeed, falls were the leading cause of deaths in 2009, accounting for 575 (63 percent) of the 910 deaths due to unintentional injuries.[8]

The fall death rate for older adults increases sharply with age. For Missouri in 2009, the death rate in older adults was more than 16 times higher than for 45 to 64 year olds (66.63 vs. 4.03 per 100,000).[8] The rate of deaths due to falls increases sharply through the senior years. In 2009, it was 16.71 per 100,000 for Missourians age 65 to 74; 69.86 per 100,000 for those 75 to 84 years old; and 239.33 per 100,000 for those 85 and older.[7] Fall death rates among Missouri's older adults are slightly higher in males than in females (Figure 2). However, females account for a larger number of deaths by falls because they are more likely to survive into the older age groups.

Figure 2. Fall death rate by age and sex among seniors 65 and older in Missouri, 2005 and 2009



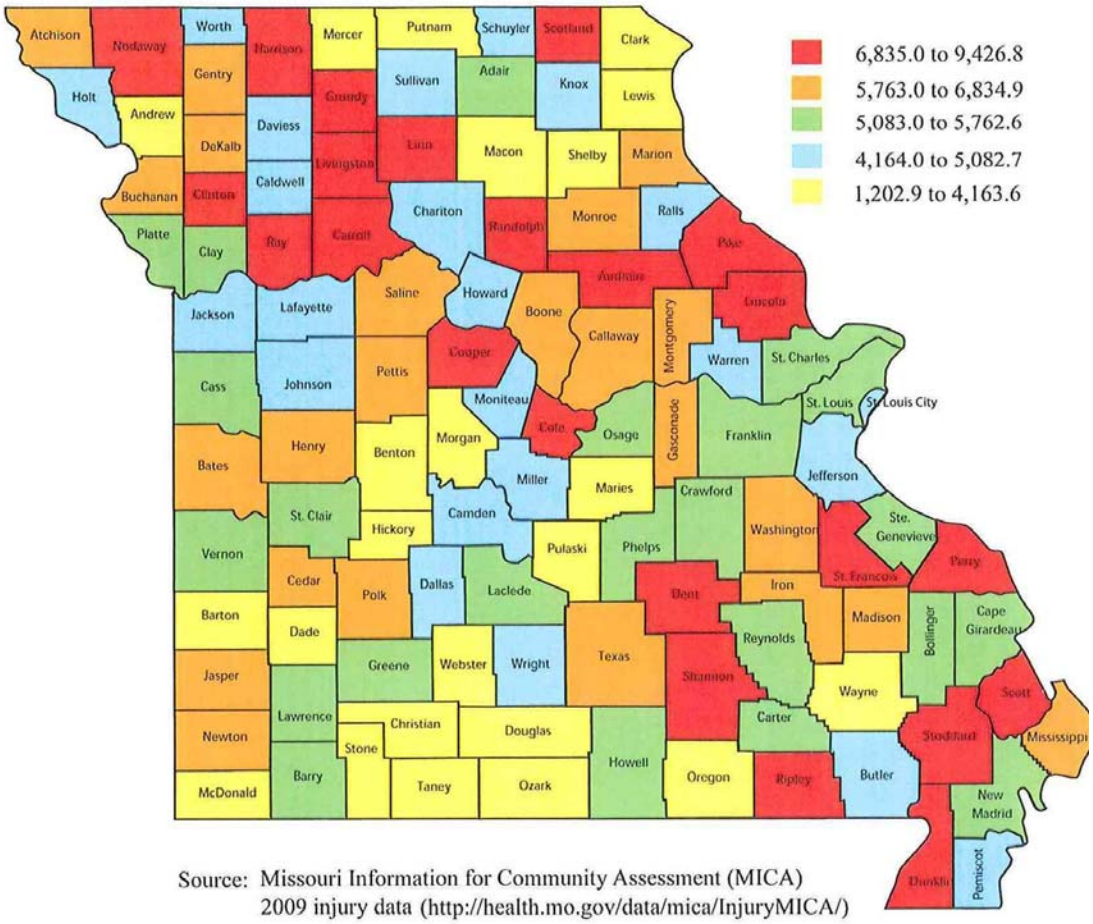
Source: CDC WISQARS Fatal Injury Data, http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html

The fall death rate in Missouri's older adults has risen in recent years. Between 2000 and 2009, the death rate nearly doubled from 38 to 72.32 per 100,000.[8] The fall death rate among white older adults is consistently higher than the rate among African-American older adults. In 2009, the rate for white older adults was more than four times the rate for African-American older adults (71.31 vs. 16.53 per 100,000).[8]

Falls are also the leading mechanism of unintentional injury-related hospitalizations and emergency room (ER) visits among older adults. In 2009, there were 45,174 such visits (or 5,492.8 per 100,000 senior population).[18] Missouri's older adults account for almost two-thirds or 64 percent of all ER visits and hospitalizations due to unintentional falls.[18]

The rate of ER visits and hospitalizations due to unintentional fall injuries increases considerably with age. In 2009, the rate in Missouri seniors 85 years and older was more than four times higher than for those age 65 to 74 (12,671 vs. 2,933 per 100,000).[18] Female seniors are almost twice as likely to be hospitalized or admitted to ER due to unintentional fall injuries as male seniors (6,755 vs. 3,760 per 100,000 in Missouri in 2009). Further, the rate of ER visits and hospitalizations due to unintentional fall injuries among Missouri older adults varies by county, from 1,202.9 per 100,000 in Clark County, to 9,426.8 in Scotland County in 2009 (See Figure 3).[18]

Figure 3. Rate (per 100,000) of ER visits and hospitalizations for injuries from falls (defined as a fall or jump) for adults 65 years of age and older in 2009



Source: Missouri Information for Community Assessment (MICA) 2009 injury data (http://health.mo.gov/data/mica/InjuryMICA/)

Where do fall-related injuries among older adults in Missouri typically occur?

Information about the place of occurrence is important in developing fall-prevention strategies. Nearly half of fall-injury cases among Missouri older adults occur at home (48 percent in 2004) (Figure 4). Fall injuries in residential institutions accounted for 16 percent of fall hospitalizations and ER visits among Missouri older adults (Figure 4).[19] Older adults in residential-care facilities are generally more frail and older than those living in the community, and thus may be much more likely to have fall injuries.[20]

Approximately 90 percent of older adults live in the community. Due to the target population of the Show Me Falls-Free Missouri Plan, additional analyses focused on fall injuries for community-dwelling older adults. The analyses concerned the type of fall and the location of injury.

Figure 4. ER visits and hospitalizations due to unintentional fall injuries among Missouri seniors 65 years and older, by place of occurrence, 2004

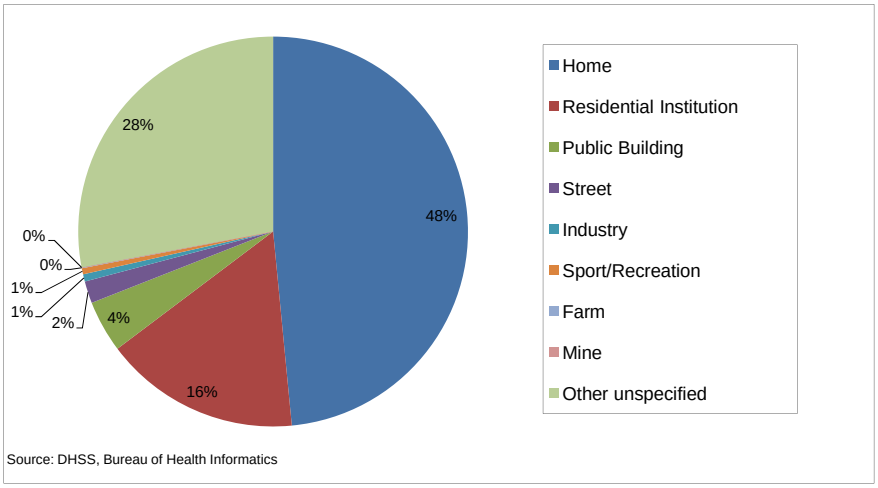
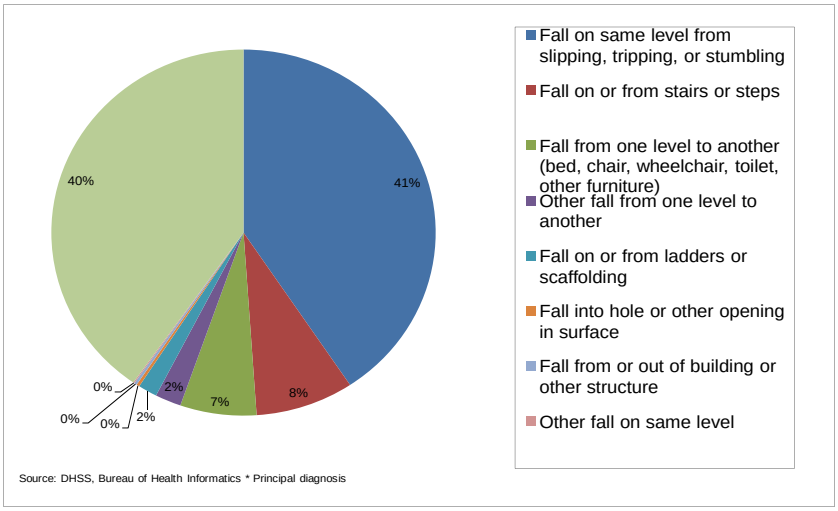


Figure 5 shows that same-level falls from slipping, tripping, and stumbling (41 percent) are the most common cause of fall-related hospitalizations and ER visits among Missouri older adults in the community.[19] However, in a large percentage of cases, the location of the fall is unspecified. Falls from stairs or steps (8 percent), and falls involving bed, chair, wheelchair, toilet, or other furniture (7 percent) are also noticeable situational factors for older adults in the community (Figure 5). One study found that objects tripped over, and stairs, were important environmental risks.[21]

Figure 5. ER visits and hospitalizations for unintentional fall injuries, by type of fall, among Missouri seniors (excluding those in residential institutions), 2004



How costly are fall-related injuries among older adults in Missouri?

Hospital charges, including inpatient and ER patient charges, give us a measure of one important economic dimension of fall injuries for seniors in Missouri.[19] Estimated hospital charges for unintentional fall injuries in older adults were $208 million in 2000, and reached $308 million in 2004 (before adjusting for inflation). These costs accounted for 77 percent of hospital charges for all unintentional injuries among Missouri seniors in 2004. Eighty-six percent of fall-related ER visits and hospitalizations in 2004 occurred in Missouri's older, community-dwelling adults, and cost $248 million. These costs comprised 81 percent of hospital charges for fall injuries among Missouri's older adults.

Hip fracture is the most serious fall injury, with approximately 95 percent of hip fractures caused by falls. [22] In Missouri, hip fractures are costly, accounting for nearly half (49 percent) of hospital charges for unintentional fall injuries among Missouri older adults in 2004.[19] The median hospital charges are about $1,500 for an unintentional fall injury, but extremely higher for a fall-induced hip fracture ($22,000) among Missouri older adults in 2004. A recent study documents a hip-fracture cost during the first year following the injury at $16,300 to $18,700 (including direct medical care, formal nonmedical care, and informal care provided by family and friends).[22,23] Only half of seniors hospitalized for hip fractures are able to return home or live independently after the injury.[20]

Hospital charges are only part of the economic cost of falls and fall-related injuries for Missouri's older adults. Total costs and fees from falls may include nursing home care, physician and other professional services, rehabilitation, community-based services, the use of medical equipment, prescription drugs, rehabilitation, home modifications, insurance administration, and costs related to the long-term consequences of fall injuries, such as disability, decreased productivity or reduced quality of life.[23]

What Risk Factors Contribute to Falls and Fall-Related Injuries among Older Adults?

A number of risk factors have been shown to contribute to falls in older adults.[2-3] While some falls appear to have a single cause, the majority result from interactions among multiple factors. Furthermore, the risk of falling increases dramatically as the number of risk factors increases – see Figure 6.[3,24- 25] The good news is that reducing the risk factors will reduce older adults' risk of falling.

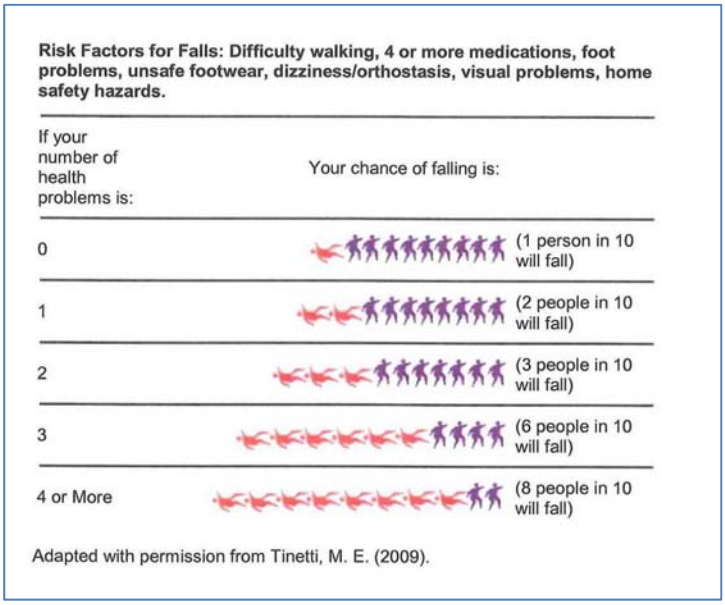
Risk factors are either intrinsic or extrinsic. Intrinsic means demographic and health factors such as advanced age, chronic disease or disability. Extrinsic means the physical and socio-economic environment, such as an older adult taking four or more prescription medications, poor lighting or lack of bathroom safety equipment. Because some risk factors cannot be changed, the focus of fall-prevention activities is on modifiable risk factors. Modifiable and non-modifiable risk factors are noted in Table 1.

Table 1. Risk Factors for Falls

Modifiable	Non-modifiable
Walking problems • *Muscle weakness* • *Balance problem* • *Foot problems* • *Medical conditions affecting walking (arthritis, Parkinson's disease)* *Medications* • *Taking 4 or more medications* *High risk medications (sleeping pills, sedatives, some antidepressants, heart medications, blood pressure medications* *Vision problems* *Dizziness or postural hypotension (drop in blood pressure when getting up)* *Home hazards* • *Poor lighting* • *Loose carpet, throw rugs* • *Lack of handrails on stairs* • *Uneven surfaces inside or out* *Chronic Illness* *Memory problems or cognitive impairment* *Fear of falling causing limitation of activities*	*Age* *Female gender* *White* *Having a prior fall*

Researchers have attempted to evaluate the importance of risk factors for falls and consistently find weakness, balance or walking problems to be key risk factors, as well as having a prior fall.[24-26] The chance of falling, as noted in Figure 6, increases with the number of risk factors, but can be decreased by reducing risk factors.[24]

Figure 6. Risk Factors for Falls.



What Are Effective Strategies to Prevent Falls?

In general, fall-prevention interventions can be categorized into three broad categories:

1) Single interventions (e.g., exercise or withdrawal of psychotropic drugs);
2) Multifactorial programs, such as a class that combines exercise with education or home hazard modifications, and;
3) Individualized risk assessments, combined with targeted interventions, to reduce people's risk of falling (usually done by primary care providers).

Several systematic reviews, meta-analyses and guidelines address best practices in fall prevention.[27-34] A key document is the recent guidelines update by the American Geriatrics Society (AGS) and the British Geriatrics Society.[27]

The primary finding is that older adults should receive a multifactorial fall-risk assessment, along with a recommendation for appropriate exercise, from their primary health-care provider. This evaluation should be followed by referrals to address risk factors for falls. AGS guidelines identify the most successful interventions to reduce falls in older adults in the community as:

- A fall-risk assessment;
- Exercise for balance and strength, and walking;
- Medication management (reducing the number of medications, and eliminating or reducing high-risk medications such as sedatives and sleeping pills);
- Addressing foot and footwear problems;
- Modifying the home environment to reduce hazards; and,
- Addressing postural hypotension (low blood pressure on rising).

These interventions may be delivered by health care providers, community groups and organizations. For example, physical therapists may do a comprehensive walking evaluation and make recommendations for walking aids or exercise programs. A home-hazard assessment and recommendations can be provided from home health care or an occupational therapist. Community pharmacists can provide education and medication assessments.

Community-based fall prevention activities include screenings, exercise programs or multifactorial fall interventions. Several evidence-based programs have been tested, and they reduce falls or risk factors for falls. One such program is: *T'ai Chi: Moving for Better Balance*.[35] This program and others are supported by the Centers for Disease Control and Prevention (CDC). CDC recently updated its Compendium of Effective Fall Interventions,[36] available at: (http://www.cdc.gov/HomeandRecreationalSafety/Falls/preventfalls.html. CDC has also published numerous resources, including fact sheets and manuals on fall prevention and handouts, for community education efforts.

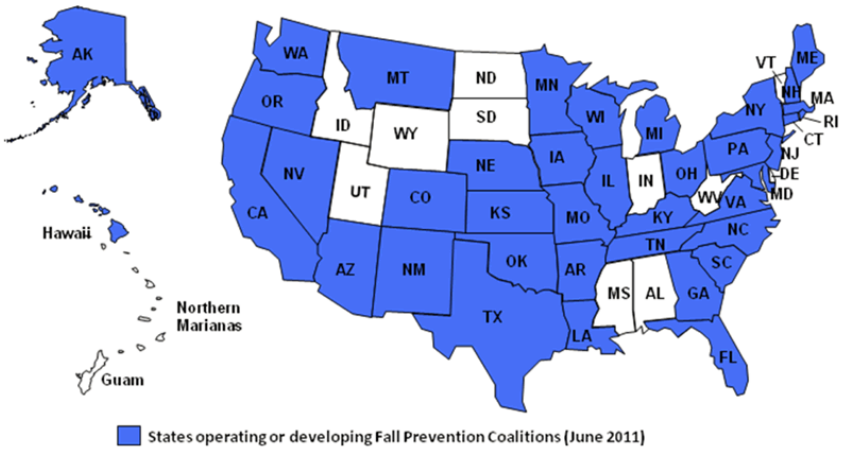
More information about programs, resources and organizations addressing fall prevention, along with websites and contact information, is listed at the end of this report.

FALLS FREE®

How Did the Missouri Show Me Falls Free Coalition Get Started?

The National Council On Aging (NCOA) partnered with the Home Safety Council, the Archstone Foundation and the Center for Healthy Aging in 2004 to establish and promote a national action plan entitled, "Falls Free: Promoting a National Falls Prevention Action Plan." Many national organizations and several Missouri entities have joined the effort. NCOA coordinates a national falls coalition and is supporting efforts in all the states to start falls coalitions.

Likewise, nearly 40 states have formed falls-prevention coalitions (see map below) or published state and regional action plans designed to aid their work in falls prevention. This document's Resources section provides links to several of these state resources.



What is the Missouri Falls-Free Action Plan?

The Missouri Chapter of AARP, supported by the Missouri Department of Health and Senior Services (DHSS), invited key state-level stakeholders and organizations to a multi-month strategic planning meeting in early 2008. Participants included representatives from health care, area agencies on aging and other senior-serving organizations, academic institutions, local public health agencies, disease-specific associations and state agencies. The original participant list is included at the end of this document.

Prior to the 2008 meeting, DHSS hosted two meetings in 2006 to gauge the state's interest in addressing the impact of senior falls in the community. The interest was keen, but state funding to implement a falls-prevention plan did not exist at those initial meetings.

The Show Me Falls-Free Missouri Plan was intentionally aligned with the National Falls Free Action Plan, and other states' work in addressing falls among seniors.

Fall Awareness Day and Coalition Activities

The Missouri coalition has offered or supported a number of events and activities to increase awareness about falls and educate people about this problem across the state. State activities have increased each year, and, in 2011, more than 80 fall-prevention activities were reported. The activities reached over 5,000 Missourians, most of whom were seniors. Additional activities probably occurred but were not reported. The coalition hopes to provide even more outreach in 2012.

Missouri is one of 43 states that participates in the national *Fall Prevention Awareness Day.* The day occurs annually on September 22, or the first day of "fall." Events include screenings for fall risk factors, lectures, pharmacy consultations, exercise demonstrations, and giving out educational materials. Outreach is provided at senior centers, malls and through home-delivered meal programs. We hope to reach even more people in the upcoming years. To get involved or offer a program at your site, check the state coalition website for information: http://health.mo.gov/seniors/showmefallsfreemissouri/

References

1. Stevens J, Mack K, Paulozzi L, Ballesteros M. (2006). Self-reported falls and fall-related injuries among persons aged >65 Years --- United States. *MMRW,* 57 (9):225-229.
2. World Health Organization. (2007). *Global report on falls in older age*. Retrieved from http://whqlibdoc.who.int/publications/2008/9789241563536_eng.pdf:
3. Rubenstein, L. Z., & Josephson, K. R. (2006). Falls and their prevention in the elderly: What does the evidence show? *Medical Clinics of North America*, *90*, 807-824.
4. Stevens, J. A., Corso, P. S., Finkelstein, E. A, & Miller, T. R. (2006). The costs of fatal and non-fatal falls among older adults. *Injury Prevention,* 12(5), 290-295.
5. Center for Disease Control and Prevention. (2011). Falls among older adults: An overview. http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html
6. Kuzuya, M., Masuda, Y., Hirakawa, Y., Iwata, M., Enoki, H., Hasegawa, J., . . . Iguchi, A. (2006). Falls of the elderly are associated with burden of caregivers in the community. *International Journal of Geriatric Psychiatry, 21*(8), 740-745. doi: 10.1002/gps.1554.
7. Center for Disease Control and Prevention. National center for injury prevention and control. Web-based Injury statistics query and reporting system (WISQARS™). Retrieved from http://www.cdc.gov/injury/wisqars/index.html.
8. Missouri Department of Health and Senior Services. (2009). Behavioral Risk Factor Surveillance System. Retrieved from http://health.mo.gov/data/brfss/index.php.
9. Rubenstein, L. Z., Josephson, K. R., & Robbins, A. S. (1994). Falls in the nursing home. *Annals of Internal Medicine,* 121(6), 442-451.
10. Halfon, P., Eggli, Y., Van Melle, G., & Vagnair, A. (2001). Risk of falls for hospitalized patients: A predictive model based on routinely available data. *Journal of Clinical Epidemiology*, 54, 1258-1266.
11. Hitcho, E. B., Krauss, M. J., Birge S., et al. (2004). Characteristics and circumstances of falls in a hospital setting: A prospective analysis. *Journal of General Internal Medicine,* 19(7), 732-739.
12. Tinetti, M. E., & Williams, C. S. (1997). Falls, injuries due to falls, and the risk of admission to a nursing home. *New England Journal of Medicine*, 337 (18), 1279-1284.
13. Center for Disease Control and Prevention. (2010). Traumatic brain injuries can result from senior falls. Retrieved from http://www.cdc.gov/TraumaticBrainInjury/tbi_falls_results.html.
14. Arfken, C. L., Lach, H. W., Birge, S. J., & Miller, J. P. (1994). The prevalence and correlates of fear of falling in elderly persons living in the community. *American Journal of Public Health*, 84 (4), 565-570.
15. Lach H. W. (2005). Incidence and risk factors for developing fear of falling in older adults. *Public Health Nursing,* 22(1):45-52.
16. Wu, S., Keeler, E. B., Rubenstein, L. Z., Magione, M. A., & Shekelle, P. G. (2010). A cost analysis of a proposed national falls prevention program. *Clinics in Geriatric Medicine*, 26, 751-766.
17. Missouri Department of Health and Senior Services. (2011). The State of Missourian's health. Jefferson City, MO: Author.
18. Missouri Department of Health and Senior Services. (2009). Missouri Information for Community Assessment (MICA), Injury Data. Retrieved from http://health.mo.gov/data/mica/InjuryMICA/.
19. Data from Bureau of Health Informatics, Missouri Department of Health and Senior Services (DHSS).
20. Kannus, P., Sieveanen, H., Palvanen, M., Jarvinen, T., & Parkkaari, J. (2005). Prevention of falls and consequent injuries in elderly people. *Lancet*, 366, 1885-1893.
21. Tinetti, M. E., Speechley, M., & Ginter, S. F. (1988). Risk factors for falls among elderly persons living in the community. *New England Journal of Medicine*, 319 (26), 1701-1707.
22. Stevens, J. A. , & Olson, S. (2000). Reducing falls and resulting hip fractures among older women. *MMWR Recommendations Report*, 49(RR-2):3-12.
23. Brainsky, A., Glick, H., Lydick, E., Epstein, R., Fox, K. M., Hawkes, W., et al. (1997). The economic cost of hip fractures in community-dwelling older adults: a prospective study. *Journal of American Geriatric Society,* 45 (3), 281-287.
24. Rizzo, J. A., Friedkin, R., Williams, C. S., Nabors, J., Acampora, D., & Tinetti, M. E. (1997). Health care utilization and costs in a Medicare population by fall status. *Medical Care*, 36(8), 1174-1188.
25. Tinetti, M. E. (2009). Facts about falls. Connecticut Collaboration for Fall Prevention. http://www.fallprevention.org/pages/fallfacts.htm Accessed November 10, 2009.
26. Ganz, D. A., Bao, Y., Shekelle, P. G., & Rubenstein, L. Z. (2007). Will my patient fall? *Journal of the American Medical Association*, 297 (1), 77-86.

27. Drootin, M. (2011). Summary of the updated American Geriatrics Society/British Geriatrics Society clinical practice guideline for prevention of falls in older persons. *Journal of the American Geriatrics Society, 59*(1), 148-157.
28. Petridou, E. T., Manti, E. G., Ntinapogias, A. G., Negri, E., & Szczerbinsak, K. (2009). What works better for community-dwelling older people at risk to fall?: A meta-analysis of multifactorial versus physical exercise-alone interventions. *Journal of Aging and Health*, *21*(5), 713-729.
29. Gillespie, L. D., Robertson, M. C., Gillespie, W. J., Lamb, S. E., Gates, S., Cumming, R. G., & Rowe, B. H. (2009). Interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews*(2). doi: 10.1002/14651858.CD007146.pub2
30. Sherrington, C., Whitney, J. C, Lord, S. R., Herbert, R. D., Cumming, R. G., & Close, J. C. (2008). Effective exercise for the prevention of falls: A systematic review and meta-analysis. *Journal of the American Geriatrics Society,* 56(12), 2234-2243
31. Clemson, L., Mackenzie, L., Ballinger, C., Close, J. C. T., & Cumming, R. G. (2008). Environmental interventions to prevent falls in community-dwelling older people: A meta-analysis of randomized trials. *Journal of Aging and Health*, *20*, 954-971.
32. Gates, S., Lamb, S. E., Fisher, D., Cooke, M. W., & Carter, Y. H. (2008). Multifactorial assessment and targeted information for preventing falls and injuries among older people in community and emergency care settings: Systematic review and meta-analysis. *British Medical Journal, 336* (7637), 130-133.
33. Michael, Y. L., Whitlock, E. P., Lin, J. S., Fu, R., O'Connor, E. A., & Gold, R. (2010). Primary care–relevant interventions to prevent falling in older adults: A systematic evidence review for the U.S. Preventive Services Task Force. *Annals of Internal Medicine, 153*, 815-825.
34. Lach, H. W., Krampe, J., & Phongphanngam, S. (2011). Best practice in fall prevention: Roles of informal caregivers, health care providers and the community. *International Journal of Older People Nursing, 6(4), 299-306.*
35. Li, F., Harmer, P., & Fisher, K. J., (2005). Tai chi and fall reduction in older adults: A randomized controlled trial. *Journal of Gerontology, Medical Sciences, 60*, M187-M194.
36. Stevens, J. A. (2010). *A CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults* (2nd Ed.). Atlanta, GA: Centers for Disease Control and Prevention.

Note: The Show Me Falls-Free Missouri Plan was originally developed by Paula Nickelson, Valerie Howard, Imtiaz Mahmood, and Mei Lin from the Missouri Department of Health and Senior Services, with input from coalition members. The report was updated in 2012 by Helen Lach and Charisse Pappas.

Resources

Fall Free: A National Falls Prevention Action Plan
http://www.healthyagingprograms.org/content.asp?sectionid=98

Center for Healthy Aging
The National Council on the Aging's Center for Healthy Aging provides access to resources, such as manuals, toolkits, examples of model programs, and links to websites on topics related to healthy aging, including health promotion, disease prevention, and chronic disease management. Provides community-based organizations with resources necessary to implement evidence-based health promotion programs for older adults in their local communities. The three Falls Free™ documents are also posted on this website: www.healthyagingprograms.org.

Fall Prevention Center of Excellence
The Fall Prevention Center of Excellence is the home of a California Fall Prevention Initiative. The center provides information to both consumers and professionals on various topics relating to falls and fall prevention, including planning and implementing public awareness campaigns and engaging coalition partners. There is a periodic e-newsletter available as well: www.stopfalls.org.

National Center for Injury Prevention and Control
Designed for fall-prevention programs, "A Tool Kit to Prevent Senior Falls," includes fact sheets, graphs, and brochures about falls and fall prevention for older adults, as well as links to publications including: "Preventing Falls: What Works A CDC Compendium of Effective Community-based Interventions from Around the World," and '"Preventing Falls: How to Develop Community-based Falls Prevention Programs for Older Adults." http://www.cdc.gov/HomeandRecreationalSafety/Falls/preventfalls.html. A white paper entitled, *Preventing Falls in Older Californians: State of the Art,* can be found at www.archstone.org/usr_doc/Copy_of_Fall_Prevention_White_Paper.pdf.

A Matter of Balance
The Matter of Balance Program was developed by the Roybal Center for Research in Applied Gerontology at Boston University and the New England Research Institutes with funding from the National Institute on Aging. In this initiative, the Partnership for Healthy Aging has modified the program delivery to include lay leaders, which is proving to be effective in disseminating the fear-of-falling program in Maine. http://www.mainehealth.org/pfha

FallPROOF!
FallPROOF! Is a comprehensive balance- and mobility-training program designed by researchers at California State University, Fullerton. It offers a practical manual that blends the latest theory into practical applications. It will prove a valuable resource for physical activity instructors and health care professionals working with older adults in physical activity settings, and it will also be helpful for assessing and designing programs to improve mobility and balance. http://www.exrx.net/Store/HK/Fallproof.html

HEROES Program, Temple University
Health, Education, Research and Outreach for Seniors (HEROES) provides educational materials to a variety of stakeholders to affect fall risk assessment and intervention. Materials are available in a variety of languages. www.temple.edu/older_adult/

Local public health department initiatives
An Issue Brief published in May 2004 by the National Association of County and City Health Officials details programmatic initiatives sponsored by or in collaboration with local public health departments and includes contact information. www.naccho.org/pubs/product1.cfm?Product_ID=21

Connecticut Collaboration for Fall Prevention
Downloadable materials for public use (screening tools), as well as information sheets describing how to handle common fall risk factors such as medications, blood pressure drops on standing, and home fall hazards, are available at: www.fallprevention.org/index.htm.

Washington State Falls Prevention website
www.fallsfreewashington.org

Stay Active and Independent for Life: An Information Guide for Adults 65+
A publication of the Washington State Department of Health, the purpose of this guide is to provide information for adults age 65 and older that will help them stay active and independent for life. The guide is intended to help individuals prevent falls and fall-related injuries – a major threat to independent living. The publication is in the public domain.
http://www.doh.wa.gov/hsqa/emstrauma/injury/pubs/SAILguide.pdf

National Resource Center on Supportive Housing and Home Modification
A university-based (University of Southern California), non-profit organization dedicated to promoting aging in place and independent living for persons of all ages and abilities, the center offers a vision for the future as well as practical strategies and materials for policymakers, practitioners, consumers, manufacturers, suppliers, and researchers. The center is an information clearinghouse for resources on home modification. The site links to several home safety checklists. www.homemods.org

Rebuilding Together
Rebuilding Together is an organization that rebuilds houses for low-income homeowners such as the elderly or persons with disabilities. Their mission is to provide houses that promote warmth, independence and safety. A home safety checklist is available on the website:
www.rebuildingtogether.org

Free from Falls Program Description
Free from Falls is a comprehensive course administered through The OASIS Institute, in St. Louis, Mo., designed for older adults who are still independent and active and wish to make changes to prevent future falls. There are four components to the program: 1) "Fall Prevention and You"; 2) "Safe at Home"; 3) "Improving Your Balance"; and 4) "Matter of Balance: Managing Concerns About Falls."
www.oasisnet.org

The National Blueprint: Increasing Physical Activity Among Adults Age 50 and Older
Blueprint partner organizations have identified 18 high priority strategies for increasing physical activity among adults age 50 and older. Website includes downloadable presentations about the blueprint, links to aging and physical activity information, public information tips and a variety of other useful information.
http://www.agingblueprint.org

Safe Step resources
This site offers a virtual home tour with suggestions and related resources for improving home safety in every room of your house, including falls prevention. The site also links to Safe Steps resources, which include medication and physical activity tips and tracking sheets that can be duplicated.
www.mysafehome.org

Help Seniors Live Better Longer: Prevent Brain Injury
The site includes brochures, fact sheets and tips for preventing falls for the family and caregivers. It also contains "Event Planning" and "Media Access" guides designed to assist with planning and hosting successful community events and working effectively with the media.
http://www.cdc.gov/BrainInjuryInSeniors/